

Attorney Docket No. 5649-1149

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Jin-Sung Chung
Serial No.: 10/644,462
Filed: August 20, 2003
For: METHODS FOR FORMING METAL INTERCONNECTIONS FOR
SEMICONDUCTOR DEVICES USING A BUFFER LAYER ON A TRENCH
SIDEWALL, AND SEMICONDUCTOR DEVICES SO FORMED

Confirmation No.: 5932
Examiner: Unassigned
Group Art Unit: 2812

In re: Jin-Sung Chung
Serial No.: 10/644,462
Filed: August 20, 2003
Page 2

On the basis that Applicant properly followed the requirements of 37 CFR §1.10 and the USPTO failed to accord the proper filing date under MPEP § 505 and thus the need to file this petition is due to error on the part of the USPTO, it is applicant's belief that no fee is due with this petition. However, the Commissioner is authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

Respectfully submitted,

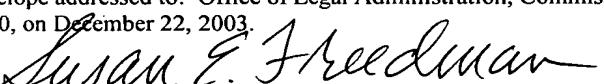


Mitchell S. Bigel
Registration No. 29,614

USPTO Customer No. 39072
Myers Bigel Sibley & Sajovec
Post Office Box 37428
Raleigh, North Carolina 27627
Telephone: 919/854-1400
Facsimile: 919/854-1401

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Office of Legal Administration, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on December 22, 2003.



Susan E. Freedman
Date of Signature: December 22, 2003



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.: 5649-1149
DATE: August 20, 2003

**UTILITY PATENT APPLICATION TRANSMITTAL LETTER
AND FEE TRANSMITTAL FORM (37 CFR § 1.53(b))**

Mail Stop PATENT APPLICATION
Commissioner for Patents
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COPY

Sir:

Transmitted herewith for filing under 37 CFR § 1.53(b) is:

a patent application
 a Continuation a Divisional a Continuation-in-Part (CIP) Application of prior application no.: _____; filed _____, the disclosure of which is incorporated herein by reference in its entirety.
 and claims the benefit of Provisional Application No. _____; filed _____.

Inventor(s) or Application Identifier: **Jin-Sung Chung**

Entitled: **METHODS FOR FORMING METAL INTERCONNECTIONS FOR SEMICONDUCTOR DEVICES USING A BUFFER LAYER ON A TRENCH SIDEWALL, AND SEMICONDUCTOR DEVICES SO FORMED**

Myers Bigel Sibley & Sajovec, P.A.
P. O. Box 37428
Raleigh, North Carolina 27627
Telephone: (919) 854-1400
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Customer No. 20792

Enclosed are:

1. Application Transmittal Letter and Fee Transmittal Form (*A duplicate is enclosed for fee processing*)
2. 16 pages of Specification (including 28 claims)
3. 10 sheets of Formal Drawings (35 USC 113)
4. Oath or Declaration
 - a. newly executed (*original or copy*)
 - b. copy from prior application (37 CFR 1.63(d)) (*for continuation/divisional*) [Note Box 6 Below]
 - c. DELETION OF INVENTOR(S) (*Signed statement deleting inventor(s) named in the prior application*)
5. Application Data Sheet. See 37 CFR 1.76
6. Incorporation By Reference (*useable if box 4b is checked*)
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

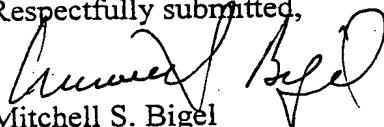
7. Microfiche Computer Program (*Appendix*)
 8. Assignment papers (*cover sheet(s) and document(s)*)
 9. Applicant claims small entity status. See 37 CFR § 1.27.
 10. Information Disclosure Statement, PTO-1449, and _____ references cited
 11. Preliminary Amendment (*Please enter all claim amendments prior to calculating the filing fee.*)
 12. English Translation Document
 13. Certified Copy of Korean Application No. 2002-0049547; Filed August 21, 2002
 14. Sequence Listing/ Sequence Listing Diskette
 a. computer readable copy
 b. paper copy
 c. statement in support
 15. An Associate Power of Attorney
 16. Return Receipt Postcard (MPEP 503) (*Should be specifically itemized*)
 17. Other:

The fee has been calculated as shown below:

	Column 1 No. Filed	Column 2 No. Extra	Small Entity Rate	Large Entity Rate
BASIC FEE			\$375.00	\$ 750.00
TOTAL CLAIMS	28 - 20 =	8	x 09 = \$	x 18 = \$144.00
INDEP CLAIMS	6 - 3 =	3	x 42 = \$	x 84 = \$252.00
<input type="checkbox"/> MULTIPLE Dependent Claims Presented			+ 140 = \$	+ 280 = \$
<i>If the difference in Col. 1 is less than zero, Enter "0" in Col. 2</i>			Total \$	Total \$1146.00

A check in the amount of \$ _____ to cover the filing fee is enclosed.
 A check in the amount of \$1,186.00 is enclosed to cover the filing fee, PLUS the Assignment Recordation fee (\$40.00).
 Please charge my Deposit Account No. 50-0220 in the amount of \$ _____
 The Commissioner is hereby authorized to credit overpayments or charge the following fees associated with this communication to Deposit Account No. 50-0220:
 a. Additional filing fees under 37 CFR 1.16 for presentation of extra claims.
 b. Additional patent application processing fees under 37 CFR 1.17.

Respectfully submitted,

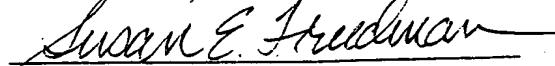

 Mitchell S. Bigel
 Registration No. 29,614

CERTIFICATE OF EXPRESS MAILING

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Susan E. Freedman

Date of Signature: August 20, 2003



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5649-1149

August 20, 2003

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00746 U.S. PTO
10/644462



08/21/03

Sir: Kindly acknowledge receipt of the accompanying by placing your receiving date stamp hereon and mailing:

Application Transmittal (in duplicate); Check-\$1,186.00; Declaration and Power of Attorney for Patent Application; Patent Application (16 pages, 28 claims, 10 drawing sheets); Assignment Recordation Form Cover Sheet and Assignment; Submittal of Priority Document and Certified Copy-Korean App. 2002-0049547; In re: Jir-Sung Chung; For: **METHODS OF FORMING METAL INTERCONNECTIONS FOR SEMICONDUCTOR DEVICES USING A BUFFER LAYER ON A TRENCH SIDEWALL, AND SEMICONDUCTOR DEVICES SO FORMED**

Respectfully submitted,
MYERS BIGEL SIBLEY & SAJOVEC



UNITED STATES PATENT AND TRADEMARK OFFICE

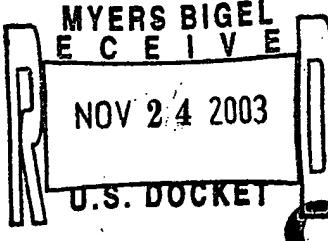
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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/644,462	08/21/2003	2812	1146	5649-1149	10	28	6

CONFIRMATION NO. 5932

20792
MYERS BIGEL SIBLEY & SAJOVEC
PO BOX 37428
RALEIGH, NC 27627



FILING RECEIPT



OC000000011288710

Date Mailed: 11/18/2003

COPY

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Jin-Sung Chung, Gyeonggi-do, KOREA, REPUBLIC OF;

Domestic Priority data as claimed by applicant

Foreign Applications

REPUBLIC OF KOREA 2002-0049547.08/21/2002

If Required, Foreign Filing License Granted: 11/17/2003

Projected Publication Date: 02/26/2004

Non-Publication Request: No

Early Publication Request: No

11-24-03 A09:58 IN

Title

Methods for forming metal interconnections for semiconductor devices using a buffer layer on a trench sidewall, and semiconductor devices so formed

Preliminary Class

[Home](#)

Track & Confirm

Shipment Details

You entered EV35 3607 351U S

Your item was delivered at 9:47 am on August 21, 2003 in ARLINGTON, VA 22202 to PATENT OFFICE. The item was signed for by J STECKEL.

Here is what happened earlier:

- ARRIVAL AT UNIT, August 21, 2003, 8:21 am, DULLES, VA 20102
- ENROUTE, August 20, 2003, 7:27 pm, RALEIGH, NC 27623
- ACCEPTANCE, August 20, 2003, 5:27 pm, RALEIGH, NC 27612

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